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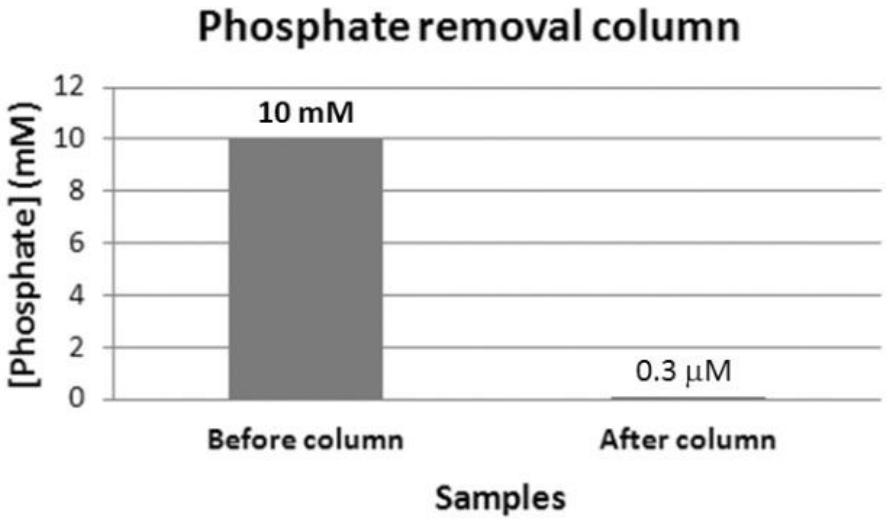
INSTRUCTIONS

ProFoldin
Phosphate Removal Columns

Micro Phosphate Removal Column Set Catalog number: MPR020

INTRODUCTION

ProFoldin phosphate removal columns are designed to remove phosphate from a buffer solution. For example, the phosphate concentration can be reduced from 10 mM to 0.001 mM or below. The principle of phosphate removal is based on interactions between phosphate and the column resin. The phosphate stays on the column. The phosphate binding capacity of the resin is 200 μmole per milliliter of the bed volume. Other buffer components including regular buffer salts and non-charged molecules such as sugar and glycerol do not bind to the resin and therefore stay in the sample solution. Some organic phosphates such as ATP also bind to the resin but not as strongly as inorganic phosphate. Metal chelators such as EDTA interfere the phosphate-resin binding.



Each Micro Phosphate Removal Column reduces 0.2 ml of 500 mM phosphate to 3 mM. It reduces phosphate from 350 mM phosphate to 0.5 mM; from 175 mM to 0.2 mM and from 10 mM to 0.0003 mM.

The **Micro Phosphate Removal Column Set** (Catalog number: MPR020) contains 20 pre-packed spin-columns.

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PROTOCOL

1. Spin the pre-packed columns briefly using a bench-top microcentrifuge to set down the resin. Cut off the caps of 1.5 ml-eppendorf tubes and use the tubes as receivers of the columns. Remove the column bottom tips and caps. Place the columns into 1.5 ml-eppendorf tubes and spin the columns at 13,000 rpm for 1 min. Discard the solution and spin the columns at 13,000 rpm for 1 min again to make sure the resin is almost dry. Transfer each column into a clean labeled 1.5-ml eppendorf tube.

2. Load 200 µl of the sample onto each column and spin the columns at 1000 rpm for 1 min. Then continue to spin the columns at 13,000 rpm for 1 min and save the elute.

   Note: If the sample volume is more than 200 µl, Step 2 can be repeated until the phosphate binding on the resin is saturated.

3. Centrifuged the elute at 13,000 rpm for 1 min to remove any insoluble material. Alternatively, the elute can be filtrated with a 0.22 µm to remove any insoluble material.

RELATED PRODUCTS

PNR020	Protein and DNA Removal Spin-columns
NAR911	Nucleic Acid Removal Kit
MDC050	Micro Desalting Spin Column Set
HIS200	MicroMolar Histidine Assay Kit
CYS200	MicroMolar Cysteine Assay kit
PEP200	Peptide Assay Kit
MAD100K	MicroMolar ADP Assay Kit - 100 assays
MUD100K	MicroMolar UDP assay kit - 100 assays
MCA1000	MicroMolar Copper Assay Kit
NZA1000	NanoMolar Zinc Assay Kit
CMC1000	Detergent Critical Micelle Concentration (CMC) Assay Kit
DAK1000	Detergent assay kit
SDS200	NanoGram SDS Assay Kit
LIP1000	MicroGram Lipid Assay Kit
MPA3000	MicroMolar Phosphate Assay Reagent
PPD1000	MicroMolar Polyphosphate Assay Kit
EDTA200	MicroMolar EDTA Assay kit
CLA100	MicroMolar Chloride Assay Kit
DTT200	MicroMolar DTT Assay kit
PAA100K	MicroMolar Primary Amine Assay Kit
CPT200	MicroMolar Cisplatin Assay Kit

For more information of molecular separation, analysis and drug target assays, please visit www.profoldin.com.